5 CUMULATIVE IMPACTS

5.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This RDEIR provides an analysis of the project's transportation and circulation cumulative impacts, as required by State CEQA Guidelines Section 15130 and 15088.5(c). As described in Chapter 1, "Introduction," this RDEIR only includes those sections that contain significant new information from that published in the DEIR (March 2006). Therefore, only the project's transportation and circulation cumulative impacts are described below. No other issue areas (e.g., air, noise) were affected by the change in cumulative traffic conditions). Cumulative impacts are defined in State CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (State CEQA Guidelines Section 15355[b]).

Consistent with State CEQA Guidelines Section 15130(a), the discussion of cumulative impacts in this DEIR focuses on significant or potentially significant cumulative impacts. State CEQA Guidelines Section 15130(b) provides, in pertinent part:

> The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness.

The cumulative impact analysis in this RDEIR is based on "(a) list of past, present, and reasonably anticipated future projects producing related or cumulative impacts" (State CEQA Guidelines Section 15130(b)(1)(A)). The project vicinity is urban and primarily built out. Residential development surrounds the project site on three sides with commercial development on the fourth side. The City of Santa Clara and the City of San Jose were contacted to identify potential cumulative projects. These projects (cumulative projects) are described below.

5.1.1 RELATED PROJECTS

The analysis of cumulative environmental impacts associated with the project addresses the potential incremental impacts of the project in combination with those of other past, present, and probable future projects and land use changes. The projects listed in this Chapter and Appendix M of the DEIR include pending applications filed with the City of Santa Clara and San Jose between January 2003 and December 2005 plus additions. These lists are not intended to be an all-inclusive list of projects in the region, but rather an identification of projects planned in the vicinity of Santa Clara Gardens project site that could contribute to

similar cumulative environmental impacts. This analysis is based on information obtained from the City of San Jose website (http://www.sanjoseca.gov/planning/dev_review/pending.asp) and staff at City of Santa Clara, Department of Planning and Inspection. The cumulative analysis also addresses the proposed Westfield Valley Fair Mall expansion. Other projects previously considered in the analysis include expansion of Santana Row.

In addition to these projects, it is acknowledged that the totality of past development in the Cities of Santa Clara and San Jose and Santa Clara County in general has, over the years, resulted in substantial changes in the environment and numerous significant environmental impacts to visual resources, air quality, biological resources, hydrology, noise, traffic, and water use. The existing conditions discussions provided throughout Chapter 4 reflect the cumulative impacts associated with previous development in the region.

5.1.2 GEOGRAPHIC SCOPE

The geographic area that could be affected by the project varies depending on the type of environmental resource being considered. When the effects of the project are considered in combination with those other past, present, and future projects to identify cumulative impacts, the other projects that are considered may also vary depending on the type of environmental effects being assessed. The general geographic area associated with different environmental effects of the project defines the boundaries of the area used for compiling the list of projects considered in the cumulative impact analysis. Table 5-1 presents the general geographic areas associated with transportation and circulation issues addressed in RDEIR analysis.

Table 5-1
Geographic Scope of Cumulative Impacts

Resource Issue	Geographic Area
Transportation and Circulation	regional and local
Source: EDAW 2006	

Because identification of individual projects on a regional scale (i.e., Santa Clara County) would be exhaustive and is unnecessary given that planning projections generally include regional development, the regional context for the cumulative impact analysis is described more generally rather than in relation to individual development projects. Where relevant, the analysis is based on regional resource studies and plans (i.e., general plans, regional transportation plans) that forecast or evaluate planned development projects over a defined planning period.

5.1.3 PROPOSED PROJECTS IN CITY OF SANTA CLARA

The following is a description of representative projects that are pending or have been approved by the City of Santa Clara and would contribute to cumulative development impacts

in the local area. Refer to Appendix M (Table 1) for a more detailed list of pending and approved projects in the City of Santa Clara.

INTEL

The Intel development proposal includes a 100,000-square-foot office building at 2250 Mission College Boulevard (SC-12b) and a 400,000-square-foot office building on Freedom Circle (SC-14). These developments are located approximately 6 miles north of the project site. These developments have been approved, but are currently on hold.

MASKATIYA/SURI

The Maskatiya/Suri development would construct a 132,000-square-foot office development located at 2350 Mission College Boulevard approximately 6 miles north of the project site. This project has been approved, but is currently on hold.

APPLIED MATERIALS

Applied Materials would develop an 840,000-square-foot research and development building located at 3333 Scott Boulevard. This facility is approximately 5 miles north of the project site. This project has been approved, but is currently on hold.

KAISER

Kaiser would develop a new helipad at the existing Kaiser hospital located at 700 Lawrence Expressway and a new 675,000-square-foot hospital facility located near the corner of Homestead Road and Lawrence Expressway. This facility is currently under construction and is located approximately 2.5 miles west of the project site. Project completion is anticipated in 2006.

HEWLETT-PACKARD

Hewlett-Packard would develop a 727,500-square-foot office and research and development facility near the corner of Stevens Creek Boulevard and Lawrence Expressway. This facility is approximately 2.5 miles west of the project site. This project has been approved, but is currently on hold.

3COM PAL SITE

The 3Com Pal Site project would develop a 278,000-square-foot office and research and development facility located near the corner of Great America Parkway and Yerba Buena Way. This facility is located approximately 8 miles north of the project site. This project has been approved, but is currently on hold.

YERBA BUENA/IRVINE

The Yerba Buena/Irvine project would develop a 911,000-square-foot office building located near the corner of Great America Parkway and Yerba Buena Way. This facility is located approximately 8 miles north of the project site. This project has been approved, but is currently on hold.

MARRIOTT COURTYARD HOTEL

The Marriott would develop a new 225-room hotel at the northwest corner of Tasman Drive and Centennial Boulevard approximately 7 miles north of the project site. This project has been approved, but is currently on hold.

RIVERMARK PROJECT

The Rivermark has a remaining 35 housing units to develop in the Agnews West development project approximately 6 miles north of the project site. This project is currently under construction and project completion is anticipated in 2006.

VIDOVICH

The Vidovich project developed 228 apartments at 3600 Flora Vista Avenue, approximately 5 miles west of the project site. Construction of this development was recently completed.

CHARGIN/EAH

The Chargin/Ecumenical Association for Housing (EAH) project would develop 42 senior-housing apartments located at 1000 El Camino Real, approximately 2 miles north of the project site. Construction of this development was recently completed.

SANTA CLARA UNIVERSITY

A Ten Year Capital Plan and Master Use Permit Amendment was approved in 2002 for the Santa Clara University campus. The Ten Year Capital Plan consists of phased development of five projects that include the construction of three new buildings and two building expansions. The Plan identifies the location, conceptual footprint and floor area of each of the approved development projects. Projects approved for development as part of the Ten Year Capital Plan include: Orradre Library Consolidation and Expansion project, Leavey School of Business, Multi-Use facility, Heafey Law Library expansion and Benson Center expansion projects.

The first project to be constructed in the Ten Year Capital Plan is the Orradre Library Consolidation and Expansion project. This project involves the demolition of the existing 114,989 square foot library, located adjacent to The Alameda Mall directly across from the Benson Center, near the northeast corner of The Alameda and Market Street intersection, and new construction of an 183,289 square foot advanced library facility on the same site.

The University has recently completed construction of a new 1,500-seat baseball stadium at the intersection of El Camino Real and Campbell Avenue across from the SCU campus intramural fields. In addition, the University is currently constructing a Jesuit Residential Community facility on Franklin Street, between Lafayette and Alviso streets across from the Meyer Theater on the University campus. This facility provides replacement housing for up to 32 members of the Jesuit order that teach and/or otherwise participate in campus operations and activities.

CITATION PROJECT

The Citation Project proposes to develop 211 townhouse style single family housing units (Mission Gardens) and 202 condominium units (Mission Terrace) located near the corner of Lafayette Street and Hope Drive. This project is located approximately 6 miles north of the project site. The project has been approved and is under construction with completion scheduled for the end of 2006 or early 2007.

SOBRATO PROJECT

The Sobrato Project proposes to develop 306 apartment units on 6.8 acres located at 435 El Camino Real and approximately 2 miles northeast of the project site. The project was approved in 2004 and project completion is scheduled for 2007.

5.1.4 PROPOSED PROJECTS IN CITY OF SAN JOSE

The following is a description of representative projects that are pending or have been approved by the City of San Jose and would contribute to cumulative development impacts in the local area. Refer to Appendix M (Table 2) for a more detailed list of pending and approved projects in the City of San Jose.

WESTFIELD VALLEY FAIR MALL EXPANSION PROJECT

The Westfield Valley Fair Mall Expansion Project would result in the addition of approximately 552,615 square feet of additional retail space and additional parking facilities that would meet City of San Jose standards for this expansion. This project is located adjacent and east of the project site.

SANTANA ROW EXPANSION

The Santana Row development has capacity to provide additional restaurant in rental space and residential units. A specific development project is not proposed; however, the cumulative traffic analysis accounts for buildout of Santana Row.

HARKER SCHOOL PROJECT

The Harker School Project proposes to develop a 58,385-square-foot science building located near Interstate 280 and Saratoga Avenue in the City of San Jose. This project is located approximately 1 mile southwest of the project site.

PACIFIC BELL PROJECT

The Pacific Bell project would develop a new 236,000-square-foot office building and a parking structure located on South Monroe Street approximately 1 mile southeast of the project site.

KIDZ ACADEMY PROJECT

The Kidz Academy Project would establish a 2,400-square-foot child care facility in an existing church on a 9.6-gross-acre site, located at 1224 North Winchester Boulevard approximately 0.15 mile south of the project site.

FEDERAL REALTY INVESTMENT TRUST TOWN AND COUNTRY PROJECT

The Federal Realty Investment Trust Town and Country Project would develop a new 650,000-square-foot retail complex and 1,200 residential units on approximately 39 acres located at the southeast corner of Stevens Creek Boulevard and Winchester Boulevard approximately 0.75 mile south of the project site.

NORTH FIRST STREET REDEVELOPMENT PLAN

The North First Street Redevelopment plan includes construction of approximately 4,000 condominiums and apartments in the North First Street industrial corridor, mostly proposed as mid- and high-rise structures. The plan area is 285 acres and is located approximately 4 miles north of the project site.

SHELTERCRAFT PROJECT

The Sheltercraft Project would develop a new 158 unit multi-family housing development at 801 South Winchester Boulevard approximately 1 mile south of the project site.

O'CONNOR HOSPITAL EXPANSION PROJECT

The O'Connor Hospital Expansion Project would develop a 90,000-square-foot expansion to the existing hospital located at 2105 Forest Avenue approximately 0.75 mile east of the project site.

5.2 CUMULATIVE IMPACT ANALYSIS

TRANSPORTATION AND CIRCULATION

Cumulative traffic volumes include existing traffic volumes that are a result of growth in the City and traffic generated by approved and pending developments in the vicinity of the project site. Traffic from cumulative developments was modeled to determine cumulative traffic levels on project-area roadways. Cumulative traffic volumes were estimated by first expanding AM and PM peak hour traffic volumes by an annual growth rate of 1.2% per year. This growth rate was established in consultation with the cities of Santa Clara and San Jose (Fehr & Peers

2006). Traffic from approved and pending developments and project-generated volumes were added to the expanded existing volumes to obtain traffic volumes representing Cumulative Conditions for the proposed project.

Operations were evaluated with level of service calculations for all of the study intersections, and the results are summarized in Table 5-2. The calculation worksheets are included in Appendix J.

As shown in Table 5-2, five intersections are projected to operate at unacceptable levels under cumulative conditions. Two of these intersections, Stevens Creek Boulevard/San Tomas Expressway and Stevens Creek Boulevard/Monroe Street, are projected to operate at LOS F. These LOS levels are unacceptable based on the county and City of San Jose standards. The project would add up to 20 peak hour trips to the Stevens Creek Boulevard/San Tomas Expressway intersection, and would increase the V/C ratio by 0.002 and the critical delay by 0.9 seconds. This increase in the volume-to-capacity ratio and critical delay would not exceed any applicable thresholds.

The project would increase the volume-to-capacity ratio by 0.005 and the critical delay by less than 4 seconds at the Stevens Creek Boulevard/Monroe Street intersection. These project's cumulative contribution to traffic increases at the above intersections would not exceed any applicable thresholds; however, because these intersections are operating at unacceptable level, the project's and cumulative development contribution of additional traffic to these intersections would exacerbate this unacceptable condition. This would be a significant cumulative impact. The project would contribute 0.56% of cumulative traffic at the Stevens Creek Boulevard/Monroe Street intersection and 0.25% of cumulative traffic at the Stevens Creek Boulevard/San Tomas Expressway intersection.

The Pruneridge Avenue and San Tomas Expressway intersection is projected to operate at LOS E+ during the AM peak hour and LOS E during the PM peak hour, unacceptable levels based on the County of Santa Clara standard. This intersection was also projected to operate at unacceptable levels under Background and Project Conditions during the PM peak hour. The addition of cumulative traffic causes this intersection to degrade to an unacceptable level of service during the AM peak hour. This would be a significant cumulative impact. The project would contribute 0.27% of the cumulative traffic at this intersection during the AM peak hour.

The Hedding Street and Bascom Avenue intersection is projected to deteriorate to LOS E+ during the AM peak hour under Cumulative Conditions. This intersection is projected to operate acceptably through Project Conditions. Therefore, the addition of cumulative traffic causes this intersection to operate unacceptably. This would be a significant cumulative impact. The project would contribute 0.25% of the cumulative traffic at this intersection during the AM peak hour.

Table 5-2
Cumulative Intersection Levels of Service

Intersection (Jurisdiction)	Peak Hour	Average Intersection Delay [1]	LOS [2]
1. Newhall Street and Winchester Boulevard (CSC)	AM PM	19.5 18.6	B- B-
2. Pruneridge Avenue and San Tomas Expressway (CSC)	**AM** **PM**	**57.0** **66.9**	**E+** **E**
3. Pruneridge Avenue and Saratoga Avenue (CSC)	AM PM	23.7 26.2	C C
4. Pruneridge Avenue/Hedding Street and Winchester Boulevard (CSJ)	AM PM	36.3 44.8	D+ D
5. Hedding Street and Bascom Avenue (CSJ)	**AM** PM	**59.1** 47.8	**E+** D
6. Forest Avenue and Winchester Boulevard (CSJ)	AM PM	21.8 26.0	C+ C
7. Forest Avenue and Naglee Avenue (CSJ)	AM PM	37.4 40.6	D+ D
8. Dorcich Street and Winchester Boulevard (CSJ)	AM PM	9.8 16.1	A B
9. Stevens Creek Boulevard and Saratoga Avenue (CSJ/CMP)	AM PM	38.0 39.0	D+ D
10. Stevens Creek Boulevard and San Tomas Expressway (County/CMP)	**AM** **PM**	**>100.0** **>100**	**F** **F**
11. Stevens Creek Boulevard and Winchester Boulevard (CSJ/CMP)	AM **PM**	44.8 68.1	D **E**
12. Stevens Creek Boulevard and Monroe Street (CSJ/CMP)	AM **PM**	37.0 **70.0**	D+ **F**
13. Stevens Creek Boulevard and Southbound I-880 Off-Ramp (CSJ/CMP)	AM PM	22.4 30.8	C+ C
14. Tisch Way/Northbound I-280 On-ramp and Winchester Boulevard (CSJ)	AM PM	19.2 40.1	B- D
15. Moorpark Avenue and Southbound I-280 Off-Ramp (CSJ/CMP)	AM PM	19.9 25.4	B- C
16. Moorpark Avenue and Winchester Boulevard (CSJ)	AM PM	36.5 44.4	D+ D

Unacceptable operations are highlighted in bold type.
[1] Average stopped delay per vehicle for signalized intersections.
[2] LOS = Level of service.
CSC = City of Santa Clara intersection
CSJ = City of San Jose intersection
CMP = Designated CMP intersection
County = Santa Clara County
Source: Fehr & Peers 2006

The Stevens Creek Boulevard and Winchester Boulevard intersection is projected to operate at LOS E during the PM peak hour, an unacceptable level based on the City of San Jose standards. This intersection is projected to operate at acceptable level under Background plus Project Conditions. The addition of cumulative traffic causes this intersection to degrade to an unacceptable level of service during the PM peak hour. The project would add cumulative traffic to the Stevens Creek Boulevard and Winchester Boulevard intersection, and would increase the volume-to-capacity ratio by 0.015 and the critical delay by 4.8 seconds. These increases would exceed applicable thresholds. This would be a significant cumulative impact. The project would contribute 0.25% of the cumulative traffic at this intersection during the PM peak hour.

Mitigation Measure: The County of Santa Clara in its Comprehensive Expressway Planning Study identified the construction of an interchange at the intersection of Stevens Creek Boulevard/San Tomas Expressway to improve intersection operations. Implementation of this improvement would reduce the project's contribution to the cumulative conditions. An implementation date for this improvement and funding has not been identified at this time. The project developers shall coordinate with the County and contribute to the fair-share funding of this interchange for this intersection. However, because this improvement is in the jurisdiction of the County of Santa Clara and is not subject to the control of the City of Santa Clara, it is unknown at this time whether this improvement would be implemented. Therefore, this would be a cumulatively significant and unavoidable cumulative impact.

The developers shall coordinate with the City of Santa Clara and City of San Jose to contribute to the fair-share funding of a separate overlap phase for the northbound right-turns at the Stevens Creek Boulevard/ Monroe Street intersection. Based on preliminary field measurements, this improvement can be accommodated within the existing right-of-way and would provide acceptable operations (LOS D) during the PM peak hour. Because this improvement is in the jurisdiction of the City of San Jose and is not subject to the control of the City of Santa Clara, it is unknown at this time whether this improvement would be implemented. Therefore, this would be a cumulatively significant and unavoidable cumulative impact.

The developers shall coordinate with the City of Santa Clara and County of Santa Clara to contribute to the fair-share funding for the addition of a second eastbound left-turn lane to the Pruneridge Avenue and San Tomas Expressway intersection. Based on preliminary field measurements, the addition of a second eastbound left-turn lane can be accommodated within the existing right-of-way and would provide acceptable operations (LOS D-) during the AM peak hour. Because these improvements are in the jurisdiction of the County of Santa Clara and are not subject to the control of the City of Santa Clara, it is unknown at this time whether the mitigation measures would be implemented. Further, it is unknown whether funding would be available to construct these improvements. Therefore, this would be a cumulatively significant and unavoidable impact.

The developers shall coordinate with the City of San Jose to contribute to the fair-share funding for restriping the east leg to provide one shared left-through turn lane, one through

lane, and a separate right-turn lane at the Hedding Street and Bascom Avenue intersection. Based on preliminary field measurements, this improvement could be accommodated within the existing right-of-way and would provide LOS D operations during the AM peak hour. Because these improvements are in the jurisdiction of the City of San Jose and are not subject to the control of the City of Santa Clara, it is unknown at this time whether the mitigation measures would be implemented. Further, it is unknown whether funding would be available to construct these improvements. Therefore, this would be a cumulatively significant and unavoidable impact.

The Stevens Creek Boulevard and Winchester Boulevard intersection is designated as a "protected" intersection by the City of San Jose. The City of San Jose requires that project impacts at protected intersections be offset by providing enhancements to the City's alternative modes of transportation rather than reconstructing the intersection. Therefore, the developers shall coordinate with the City of San Jose to identify specific improvements and contribute fair-share funding toward construction of improvements on other segments of the City of San Jose's transportation system. These improvements shall meet the City of San Jose's standing for improving roadway system capacity and/or enhance non-auto travel modes. First priority for such improvements shall be those improvements that would be proximate to the neighborhoods affected by project traffic. Provided by funding to the City of San Jose's overall multi-modal transportation system, the development project would contribute substantially to achieving the City of San Jose General Plan goals for improving and expanding the City of San Jose's multi-modal transportation system.

The developers shall also coordinate with the City of San Jose to contribute to the fair-share funding for construction of an additional southbound left-turn lane at the Stevens Creek Boulevard/Winchester Boulevard intersection. Based on preliminary field measurements, this improvement could be accommodated within the existing right-of-way and would improve that operation of this intersection to LOS D during the PM peak hour. Because these improvements are in the jurisdiction of the City of San Jose and are not subject to the control of the City of Santa Clara, it is unknown at this time whether the mitigation measures would be implemented. Further, it is unknown whether funding would be available to construct these improvements. Therefore, this would be a cumulatively significant and unavoidable impact.